1: Warner E-5 (1926-1929) 1937
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Everything that can be digested is eaten, but nothing is done with bone or shell. When the Malays were trading with the natives the shell was exchanged for Malay products.

A man who goes turtle harpooning usually takes three or four men with him to paddle the canoe. He is considered the leader, but helps with the paddling while looking for turtle. The canoe goes beyond the breakwater out into the open sea. Along the sand beaches a goodly number of these animals can be found swimming in to shore to lay their eggs. When the head of the turtle is sighted all the oarsmen paddle as rapidly and silently as possible. They hold their heads and bodies down as low as possible so as not to be seen. When the canoe gets within range the harpooner articulates his harpoon to his spear-thrower and aims it just back of the turtle's head. If he strikes, the turtle dives, taking the head of the harpoon with the rope following to the sea bottom. The rope is held on to if it is possible; if not, it is picked up again when the animal rises sufficiently to bring the rope within reach. When the turtle comes up for air he is sometimes speared again, once more goes down, and the rope again held. When the rope becomes slack and it is felt that the turtle has tired itself, a man jumps overboard, puts his hands at the side of the turtle and attempts to turn it on its back. When he has it in this position the other men pull up on the rope. They catch hold of the turtle's legs and pull it on board. It is then hit on the head with a club. This has to be done carefully because a bite in a vulnerable spot would probably result in death.

Eggs of three species of turtle are eaten. Buckingham and Arnhem Bays are supposed to furnish the largest supply. Nests of crocodiles are sought out along the swampy river banks and their eggs gathered and eaten.

Sharks and crocodiles are harpooned, but usually speared. The backbone of a crocodile is chopped in back of the hind legs to sever the tail and to prevent its striking the hunter. When a sting ray is speared its tail is held in the mouth to prevent the fish's barbed prong from striking the spearsman while he is killing it.

The shallow rock bottoms along the seacoast or the white sand bottoms of the long low beaches where the water is knee to waist deep are the favorite fishing places. A spear-thrower is nearly always used with a fish spear.

Poison is sometimes used to stupefy fish, which then float in the water until gathered in. Dungi, an unidentified vegetable product, is

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macerated and placed in the pool. Some of the writer's informants claim that a poison grass is used similarly.

A fish is cut in halves the long way and cooked immediately because it is believed that if a bit old when eaten it causes leprosy (but see Magic, page 207).

Oysters, periwinkles, and the many varieties of bivalves gathered by the women are cooked on the shore at the spot where they are collected. A fire is made over stones and the shellfish put on the hot stones and embers. The shells open or crack and the flesh is removed and eaten by the women or placed in small receptacles to be carried home to the men.

Honey is gathered by both sexes, but usually by men. When a hive is discovered in a hollow tree that is not too large the tree is cut down and the trunk split open. The honey is usually eaten where found. Gathering honey is a painless task in Australia because the native bees are stingless. The honey is often put in a water-tight basket, mixed with water and drunk as a beverage. It is never allowed to ferment; the natives have no intoxicating drink. The wax is formed into a ball and put in the men's baskets to be used in the construction of various implements.

Pandanus fruit, ripening about August, is cut up into fine pieces and cooked. The small cabbage palm is gathered about the same time, the whole trunk of the plant being cooked and beaten on a log, and the glutinous product eaten. Spear grass is chewed by the children as well as the other people.

Cycad palm nuts are gathered from the center of the trees by the women with the aid of a forked stick placed against the trunk to make a rough ladder. The nuts are knocked off with a club if they are too high to reach. The outside skin is removed and the kernels are placed in a large basket which is submerged in a fresh-water pool and allowed to remain several days until the poisonous qualities of the green fruit are removed. Sometimes the women first heat the nuts, thus reducing the time for soaking them.

Several varieties of tree grubs are eaten. Both men and women gather them. They select trees which have the proper indications upon them, split open the trunk, and remove the grubs which are washed and eaten raw. They look much like the entrail of a fowl and taste much like a snail.

The nests of all the larger birds are robbed and the eggs eaten. During the proper season the various sea birds lay their eggs in great

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it, then digs a hole, puts in the image, and buries it. It is left there and starts to swell up. As soon as it does so noticeably, the rain starts.

Another method is to take a pile of dangi bark (used for poisoning fish) and beat it thoroughly with a stone. Large armfuls of green grass are then gathered, the dangi is placed inside of the grass, and all of it tied in a bundle. Stones are then placed on top of the grass, and the bundle is carried out into the sea or fresh water to the height of a man's shoulders and dropped. The man then comes up out of the water and sings the sound of rain falling and pushes the water with his hand, which causes it to splash as though rain were falling in it. He says, "In three days there will be clouds and in four days there will be rain."

The bundle can also be made into a human image, which can be and usually is given the name of the maker.

If one wants the rain to cease, the grass is taken out and thrown about so that it will dry, and the rain then stops. If it continues to such an extent that a huge flood sweeps down from the bush country a very powerful medicine man may dive into the flood water, catch the offending sacred python who is causing the flood, and send him back into his water house, which causes the waters to recede. A few years ago a tremendous flood came down the Buckingham River and went higher and higher until the people climbed the highest trees with their babies and dogs. The flood came still higher and faster, and finally it knocked some of the children, dogs, and babies, and a few of the older people into the water and drowned them. Warlumjupo, the Ritarngo medicine man, with the help of his familiars, dived in the water and caught Muit, the totemic python, pulled him back, and sent him down into the well again. The rain stopped and the flood ceased. Only medicine men understand how to do this.

Murngin believe they cannot stop rain if it comes by itself. Sometimes they think that it has been caused by people in other countries performing the magic. Nothing can be done about it unless the people themselves take the proper methods to stop the magic from working.

THE MURNGIN PHARMACOPOEIA

The Murngin do not depend entirely upon magic for curing their illnesses. They have a fairly extensive pharmacopoeia which includes both animal and plant remedies. Each illness has a special treatment applied to it. If a sick man has been treated with herbs he can also

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278 757 be treated by magic, which is felt to be much more potent. Some of the herb remedies have magic mixed in with them.

Vomiting and Stomachache.—A nest of green ants is gathered, placed in a water-tight container, and put over a fire to kill the ants and eggs. Water is then poured upon the contents and the ants crushed in the hands so that the acid from the insects becomes infused into the water. The water is then drunk by the person who is ill. If a baby has a stomach complaint he is forced to drink some of this liquid, and the mother's breasts are rubbed with it. The natives say that it tastes much like tamarind bean soup.

755 *Diarrhea or Dysentery.*—One of the treatments for dysentery and diarrhea is to take some of the excrement and place it near a red ant bed. The ants carry the excrement inside their mound. This is supposed to cure a man in a short time, since there is a mingling of the power of the ant bed and of the man.

278 757 *Headache.*—The leaves of the mu-tir (unidentified) are gathered by a woman, and an infusion of them is made and rubbed over the head, face, and upper body of the ailing person. The leaves are rough, and the Murngin say, "This is just the same as rubbing sand over the body. It feels rough. When a man has a headache it is just the same as if he had dirt on his head and this cleans it off."

Sore Throat.—Drinking an infusion of broken-up leaves of the paper-bark tree is supposed to relieve a sore throat; sometimes it is drunk only for the pleasure. The fruit from the ne-urk tree is chewed to relieve a cough.

Heavy Throat or Chest Cold (girri girri).—The inner bark of the stringy-bark eucalyptus tree is chewed and swallowed to relieve congestion.

Tooth- or Earache.—The bark of the small plum tree found in the area is removed, the trunk is put in the fire until it becomes hot, and a portion is placed over the aching tooth or against the ear.

Bungeye (bum-bai).—This ailment is frequent among the natives and goes through a group every few months. Either one or both of the eyes swell and close for three or four days. Salt water is poured on shavings of the plum tree (dangapa). The infusion is then poured into the eyes of the prone patient for half an hour or so.—Bungeye is supposed to be caused by dirt in the corner of the eye, and not by watching anything which is ritually unclean.

278 752 *Granuloma, Yaws, and Wound from a Spear.*—The bark is taken from the tree which produces fish poison, broken up, and placed in

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water. The container is put on red-hot stones to heat. When the water has boiled sufficiently to form a poultice the latter is cooled slightly and placed on the sore or wound. 278 752

Granuloma, yaws, and spear wounds can all be caused by magic. It is thought that a magician can cause them by stabbing a sting-ray prong into the track of his victim while at the same time calling out the name of the object of his magic or by singing one of the black magic songs. It is also believed that yaws in the nose and mouth can be caused by a man's throwing away his nasal septum stick, which is found by an enemy and placed between two branches of a tree that rub together. This smashes the nose piece, and the man's nose and mouth are affected by this process. 754

Sometimes if a man has a yaws sore on his foot a live clam is found and the foot placed over it. The clam is supposed to suck the soreness from it. When a man has been wounded, frequently one of his kinsmen places his fingers in the wound to see if the spear has gone through to a vital spot or not. If he cannot feel flesh at the end of his finger it is believed the man will die. 755

Sting-ray or Catfish Wound.—A variety of the bush beetle is macerated and rubbed on the wound. "It makes the sore feel quiet and easy." Cockroaches are also used in the same way. 278 752

Poisoning from Untreated Cycad Palm Nuts.—Occasionally children are made violently ill or die from eating untreated cycad nuts. The natives attempt a cure by rubbing the hair with the stickers from the leaf of the pandanus. 278 757

Ringworm (pur-o-pur-o).—This is "caused from nothing," for, according to Murngin thinking, it is due to a man's scratching himself, no magic being involved. Ringworm is treated by rubbing the offal found in a bees' nest or red ocher on the ringworm scales.

Constipation.—The yellow pollen found in a honeybees' nest is eaten dry. "It acts just like that Epsom salts you have," said my informant.

Festering Splinters.—The splinter is allowed to remain in the flesh until it festers, when it is easily taken out. Beeswax is made into a small splinter and pushed into the hole where the splinter has been. A firebrand is then touched to the end of the wax; this melts the inner part of it and allows it to penetrate farther into the sore. This is done particularly if the splinter is in the foot for it enables the man to walk more easily. 278 752

9: Thomson E-5 (1935-1943)1949
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carried out locally and under close control, so that the "grass burn" season conducted by each horde, or hunting group, is prolonged sufficiently to yield its full food potential over a period of weeks or months, without waste.

By the time the burning of the grass has been completed, another phase in the cycle is reached. The group may now follow the watercourses, which are gradually drying up, and employ the special fishing methods which tradition (backed by a long period of trial and error) has established, as being appropriate to the area and to the season. They secure fish, freshwater tortoises and snakes, by swimming "drives" and by the use of dams, weirs, traps, nets, and special poisons containing chiefly *rotenone, saponin* and *tephrosin,* which, as the volume of water becomes restricted, can now be used effectively to stupefy the fish. One of the most effective of the fish poisons used by these people is *moiyoŋo* (*Tephrosia leptoclada*)* a leguminous plant with a root shaped like a small parsnip. This plant, of which specimens were examined at Rothamstead Experimental Station (Herts. England) was found to be highly toxic in solutions of 1%. Later again, the groups which have been hunting independently during the early south-east season, will converge on the few deep permanent lagoons, where the camps increase in size as they are augmented by other groups of people who have been similarly engaged in nomadic hunting.

At this time the chief food of the natives inland will be *ŋätu*, the fruit of the Cycad Palm (*Cycas media*), which in this area yields very large quantities of food. In coastal

*A second species of *Tephrosia* hitherto undescribed, also called *moiyoŋo*, collected during the expeditions in Arnhem Land on which this work was carried out, has since been named *T. Arnhemia* by Mr. C. T. White (Government Botanist, Queensland).

11: Webb M-5 (ca. 1930) 1933 OI17 Murngin OI17

136 Though most of the snakes in this district are non-venomous, there are at least two varieties whose bite is deadly. These are the *darrpa* (Port Darwin brown snake) and the *bati kuririmiri* (death adder). The former of these is the more common along the coast, and from the bite of this reptile quite a number of deaths occur. Nothing approaching effective treatment for snake-bite has been discovered by these aborigines, and nothing more futile than that 755 followed could well be imagined. A man who has been bitten is made to sit down beside a fire while another man blows smoke through a hollow branch or dry pandanus stem on to him. As the smoke emerges at the other end of the tube another man carefully watches, and if in the smoke he sees the *mali* (non-material form) of a snake, it is known that a *ragalk* (sorcerer) has brought about the misfortune, and the man will die. If no such form is observed the man will recover. Frequently this ceremony is performed after the man has died, and so merely serves to corroborate a conviction which has already been definitely reached. In such a case imagination never fails to create the *mali* of the snake.

755 Another very curious method of procedure is as follows: If a 752 person has been bitten and he is able to capture the snake he does so by pressing a stick upon it just behind the head and then binding the snake to the stick at that point. With the snake thus held he returns to the camp.

There the snake is left until it is seen to pass all the blood it has extracted from the person bitten. When this occurs the person begins to recover, and soon all ill effects have passed away. The snake is now released not killed. If it were killed the person would undoubtedly die also.

755 For the poisonous stab of a catfish, stingray or other fish a live 752 *borok* (wood cockroach) is taken, held between the finger and thumb, and its inside is squeezed out over the wound. Another form of 278 treatment is to apply the leaves of the *rorgor*, a long trailing plant which grows in the beach sand. These leaves are heated on the coals and pressed upon the wound. For the bite of a *butungor* (scorpion), the creature itself is killed and rubbed on the bitten part.

755 Amusing in its childishness is the method of treating pustular 752 sores, boils, or swollen glands. A piece of charcoal is wrapped in a

11: Webb M-5 (ca. 1930) 1933 OI17 Murngin OI17

thin sheet of paper-bark and placed on the sore. This is then bitten either by the man himself or by a companion. The sore, hearing the crunching of the charcoal, learns that some one is fighting it, and so takes its departure. 755 752

Bleeding is resorted to in cases of severe headache, and less frequently for backache. For the former a deep cut is made above the brow, usually by a single blow with an iron or flint spear-head. Another method is to take a splinter of glass or flint, and with a flick of the wrist to make a cut in the inner corner of the eye. Still another is to take a piece of *baku*, a trailing cane, split it and shape it to a sharp point. This piece of cane is then thrust up one of the nostrils, and is kept there with the finger plugging the nostril until a throbbing sensation begins. It is then quickly withdrawn, and is followed by profuse bleeding. 757

For wounds such as those inflicted by iron- or stone-headed spears the male flower stalk of the *woragar* (cicad) is used. This is split open and the soft centre obtained, which is cut into small pieces placed in a *dzakaruŋ*, paper-bark basket, mixed with urine, warmed by dropping a hot stone into it, and then applied to the wound. 752 278

The treatment of a man who has been so wounded that his intestines protrude is a crude and gruesome business. A man so wounded sits on the ground while a companion withdraws as much of his viscera as possible and lays it out on the sand beside him. The injured man then takes a deep drink of water, and all present watch to see if any of it escapes from the parts visible. If no leakage is observed it is presumed that the man has suffered no internal injury, and his organs are washed and replaced. Certain plants are then obtained which may be used either singly or in conjunction. These are *dirrbuk*, a small carrrot-like root, and *lauwarr*, a kind of grass. These are pounded between stones and then inserted through the wound into the abdominal cavity in order to keep the organs in position. If neither of these plants are to be obtained, almost any substance may be used.

The external wound is then painted with white clay and a dressing made of *warrkarr*, the bulb of a large lily, is applied, after which the man is bound round with strips of paper-bark. Nothing

11: Webb M-5 (ca. 1930) 1933 OI17 Murngin OI17

752 278 is done to remove the substances inserted into the man's body, and my informants are quite positive that he carries the grass, *etc.*, about inside him until his dying day.

752 When a man is speared with a barbed wooden spear great difficulty is often experienced in extracting it, particularly if the wound be near some vital organ of the body. If speared in one of the limbs the spear is usually pushed right through and withdrawn at the side opposite to the entry. In the case of a body wound this cannot be done, so the spear is cut off close to the body and a dressing [278] of *dzalkor*, tree orchid, is applied, after which the man is bound with paper-bark. This dressing is said to penetrate along the spear-head and loosen it. When, however, I asked how long it would be before the spear could be withdrawn the reply was *Bamantha. Narnak barrpamiri.* (A long time. When the flesh becomes putrid.) It would therefore appear that the " medicine " does not help matters very much.

752 278 Burning owing to the habit of sleeping in close proximity to fires is of very frequent occurrence, and is treated in the following way. If the skin be not destroyed an orchid stem is crushed between the teeth until it is soft and glutinous, and then dabbed on the affected part. If the skin be badly broken the burn is painted with *miku*, red ochre.

757 278 A variety of preparations are used for ulcers, yaws and similar diseases. One is to cut open the stem of a *gunga*, pandanus palm, and obtain the pithy centre, which is pounded up, mixed with urine, and applied hot. Another is to get the gum of the *warndua*, blood-wood eucalypt, dissolve it in water and paint on every couple of days. Yet another is to scrape off the under bark of the *barnggor*, black mangrove. This also is mixed with water and painted on the affected parts. For applying these preparations a small green stick is taken and the end crushed between the teeth until it forms a rough sort of brush.

757 An interesting method is followed in the treatment of the raised sores which often accompany yaws and which appear most frequently on the palms of the hands or the soles of the feet. A person suffering from such a sore goes out on a reef or sand-bank when the tide is low and finds a *yanungani*, sea anemone, which is lying open. He

11: Webb M-5 (ca. 1930) 1933 O117 Murngin O117

then quickly presses the affected part into the open centre of the creature, whose tentacles immediately contract and cause a certain amount of suction. The member is held there for a considerable time, and when withdrawn the raised exterior is said to have been removed and clean bleeding flesh, which will soon heal over, exposed. Another form of treatment for such sores which is used more particularly by tribes further inland is to prepare in the following manner some dogs' excreta. This substance is wrapped in a piece of paper-bark and rolled and kneaded until it is soft. Small pieces of bone or other foreign substances which have passed through the animal are then extracted, and the excreta placed and bound upon the affected part.

For influenza, fevers, and general aches and pains the following are the more generally used preparations.

(*a*) *Kauulurr*, a coarse kind of grass. This is pounded between stones and mixed with water. It is used both as a liniment and taken internally.

(*b*) *Balparayan*, a fairly large tree with light-coloured leaves and fruit like a small green apricot. The soft outer bark of this tree is scraped off and the gum which exudes is mixed with water and rubbed on.

The two above are sometimes used in conjunction as an embrocation, but the *balparayan* is not taken internally.

(*c*) *Kuninyi*, a shrub with large dark-green foliage. The leaves are treated as in the cases above, and are used as a liniment. The small cone-like fruit is taken green, crushed, and eaten as medicine. The ripe fruit is eaten as food.

(*d*) *Muttirr*, a small tree with very rough light-coloured leaves. These leaves are prepared in the usual way, and the preparation rubbed on the affected parts.

(*e*) *Karaika*, stringy-bark tree. The young shoots of this tree are crushed and steeped in water, which is then drunk. This is regarded as a very effective remedy for coughs.

(*f*) *Baku*, a trailing cane. This is prepared in the same way, and is used as a liniment and also taken internally.

One method of curing a cough is to eject some *gal*, sputum, into a small shell, close the shell with a leaf or piece of paper-bark and

11: Webb M-5 (ca. 1930) 1933 OI17 Murngin OI17

757 278 place it in the fire. It is said that within a few days at most of doing this the cough will disappear.

The ever-present *kal-kal*, green ant, is employed as an emetic. These insects are crushed between the palms of the hands, mixed with water, and swallowed. It is said that violent vomiting is thereby produced.

For diarrhœa a small brown fungus which grows on the bark of certain trees and which is called *bulogun* is taken roasted on the coals then scraped into water, which is drunk cold. The young shoots of a tree called *narini*, chewed and eaten, are also said to give relief from this complaint.

757 Such are some of the remedies and modes of treatment employed by these aborigines in endeavouring to overcome their various complaints, injuries, and diseases. In the preparation and administration [887] of the various remedies it is the old women who are chiefly engaged. The *marrngit*, magician, deals only with those cases [756] where the patient's condition is believed to be directly due to the operation of evil magic.

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224 on the eyes, cheeks and arm of a hunter to make him alert
789 and far-seeing—*mel karrkuluk*—and so to aid him in sighting and approaching game that is difficult to kill, 554 success with which brings prestige to a hunter. The blood drawn by a *ragalk* from his victim, or the flesh taken from 778 the body of a man whose death has been brought about by a sorcerer, has special potency in magic. It is regarded as dangerous, *duya*—tabu in a ritual sense by virtue of its *marr*—*marr dal* (*marr*, spiritual power, *dal*, strong). It must therefore be eaten only with due observance of ritual precautions. In the case of a young man or uninitiated boy, human flesh, particularly flesh from the victim of a *kalka*, may be given to him only by an old man who first applies 789 his own axillary sweat to the mouth, face and throat of 784 the novice so that he will not become sick, and thus ensures that he receives the benefit of the *marr* without the danger that he would otherwise incur. On no account may a boy or a young man touch this flesh or blood with his own hands.

774 Meanwhile the victim of the *kalka* lies unconscious and
754 is declared by the natives to be dead. They say that his *malli*—his ghost—remains with the body, but that his *birimbir* departs. The *birimbir* is very near to our idea of the soul. It resides originally with the *malli ranga*, the spirit or spirit-manifestation of the totem which remains always in the *wangarr kapu manotji*, the totemic well or water hole where it swam until it entered the mother's body at conception. When the *birimbir* leaves the body of the victim of the *kalka*, my informants said that it returned to the *kapu manotji*. And they added: 'All same he die.' It is as if the man has died. For when a man dies his *birimbir* returns as described above, to the *kapu manotji* from which it came and swims there until it is again reincarnated.

754 The *kalka* now proceeds to restore his victim to life.
278 He takes a white stone from his dilly bag. First he rubs on
824 the body the mucilage of an orchid called *djalkurk*, *Dendrobium dicuphum*, and then warms the stone, which he places on the sore—*tji'tji*—or on the victim's chest. He warms the stone again and now places it on the *maiyang* (throat) and chest. Then he draws the skin back into place, heats the stone again and places it on his victim's cheeks, supplementing the stone with the blade of his *mangal*—spear-thrower. My informants said that the penis of the victim is erect, the tongue hanging out and the bowel prolapsed, and each of these organs has to be treated and replaced in position. Sometimes one of the *kalka* will climb a nearby tree and break down the leafy nest of a green tree ant (*Œcophylla virescens*)—which exudes a strong, pungent odour of formic acid and is believed by the natives to have some therapeutic value. The *kalka* scatters these ants over the prolapsed intestine, which my informant declared to be effective in causing it to retract.

754 It was a matter of surprise to me to find a number of men who were in possession of the *kandjirma*, which are the stock-in-trade of the *ragalk*, admitted to membership of the cult, and were even willing to demonstrate to me their technique in dealing with a victim.

The natives do not pretend that a man subjected to treatment by *kalka* in the manner described is afterwards

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15:Chaseling M-5 (ca. 1934-1936)1957
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invited me to go with him for the horses, but warned me to keep my eyes open for green tree-ants. I looked in vain for the ants till Webb pointed to a ball of leaves on the tree near my head. These were green tree-ants at close quarters.

Nests of the green tree-ant are as big as a man's head and are made from leaves bound with larvae-silk. Larvae spin the silk to cover themselves, but workers divert the silk for nest-making, drawing the leaves together and weaving the living larvae-shuttle backwards and forwards till the foliage is bound with silken thread. Webb held his finger near the nest, and the warrior ants attacked; they all seemed to be soldiers, for they climbed on top of each other and fired formic acid. Months later I saw Yulengor using this acid for coughs and colds, first crushing the ants, soaking them in water and sipping the mixture.

We found the horses bogged in the swamp. Webb said they became bogged when rolling in the mud to coat themselves for protection against mosquitoes. I suspected a local mosquito 'yarn', but on the way home saw a dozen brumbies coming from the mud-flats, and all completely mosquito-proofed for the night.